



LIFE III

focus



A sustainable approach for the environment

*LIFE and the Community Eco-Management
and Audit Scheme (EMAS)*



European Commission

**European Commission
Environment Directorate-General**

LIFE Focus is the six-monthly journal of the LIFE III programme (2000-2004).

LIFE ("The Financial Instrument for the Environment") is a programme that was launched by the European Commission and is coordinated by the Environment Directorate-General (LIFE Unit - BU-9 02/1).

The content of LIFE FOCUS does not necessarily reflect the opinions of the institutions of the European Union.

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Luxembourg: Office for Official Publications of the European Communities, 2003

ISBN 92-894-0543-0

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Printed in Belgium

Printed on recycled paper

European Commission

LIFE FOCUS / A sustainable approach for the environment - LIFE and the Community Eco-Management and Audit Scheme (EMAS)

Luxembourg: Office for Official Publications of the European Communities

2003 — 32 p. — 21 x 28 cm

ISBN 92-894-0543-0

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Herbert Aichinger
Head of the Industry Unit, European Commission, Directorate-General for the Environment.

Whether in the area of high sulphur dioxide concentration, lead emissions or waste water¹, environmental legislation in the European Community and the Member States has made decisive progress during the last 30 years. Much still needs to be done however, if we are to pass on a healthy environment, with its natural heritage safeguarded, to our descendants. Current trends in a number of areas – such as transport, energy, industry, tourism, land management and use – will exacerbate their detrimental effects even further if appropriate measures are not taken.

To be completely effective, these measures must not only take the form of regulations or constraints to be observed. They must also be underpinned by a voluntary commitment.

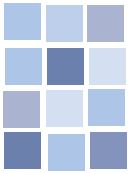
It was to encourage such commitment on the part of industries that the European Commission adopted the Community Eco-Management Audit Scheme, or EMAS², in 1993. This scheme offers companies that are willing to commit themselves to a better management of their environment a flexible tool and a good cost-effective approach. Since it was reviewed in 2001, it has also been applicable to any public body which promotes "good governance" in the environmental sphere.

EMAS's progress within the European Union is encouraging. Nevertheless, some organisations, particularly small and medium-sized enterprises, experience difficulties in carrying out its procedures. The LIFE programme, which has supported EMAS since it was launched, has a part to play in testing practical solutions. This can be considered complementary to the necessary legislative measures in favour of organisations that have committed themselves to this course. LIFE has the financial resources to set up a series of practical projects to promote EMAS more widely and to encourage its application through new approaches.

This edition of *LIFE FOCUS* presents ten successful experiences selected from among the LIFE projects that have either prepared the way for EMAS or that have implemented it. There is no sign of this support abating, as 8 of the 109 LIFE-Environment projects adopted in 2002 are dedicated specifically to EMAS.

¹ See LIFE FOCUS No 1: "Water, an essential resource".

² Eco-Management and Audit Scheme.



LIFE, a lever for EMAS

LIFE has been directly supporting the implementation of the European Environmental Management Scheme known as EMAS in projects based on experimentation and innovation or has been contributing indirectly to preparing the ground for EMAS for the last ten years. LIFE is thus a valued tool for reinforcing the EMAS approach, the key role of which has been confirmed in the Sixth Community Environmental Action Programme.



*EMAS on the road:
Promotional campaign of the Cologne
public transport company.*

A substantial direct contribution

LIFE provides cofinancing of between 30 and 50% of the cost of projects which enable the application of EMAS in various sectors to be tested or new ways for its implementation to be explored. This financial support is all the more significant in that, while EMAS permits substantial savings in the use of energy and materials, the procedure to follow is costly at the outset, particularly for small and medium-sized enterprises (SMEs). LIFE's contribution to obtaining EMAS registrations is not only financial. It also manifests itself in an **innovatory approach**, the systematic search for ways of reducing the environmental impact of activities in all sectors. This concerns techniques and processes, water, energy and waste management, the definition of environmental indicators, specific training courses, the design of tools and services adapted to the needs of organisations, etc. This approach is **based on experience**, which facilitates the transition from concept to reality and the development of long-lasting solutions. LIFE endeavours, moreover, to make the results **transferable** and to ensure that they are widely **disseminated**, making it possible to capitalise on experience gained and avoiding reinventing the wheel. The setting-up of **networks** helps to exchange experiences and to develop synergies. Finally, LIFE reinforces the **European visibility** of a project and affixes its logo alongside that of EMAS.

There are multiple environmental problems linked to all aspects of the activities of industries and services. It is essential, therefore, to approach them as a whole and to adopt a systematic approach. That is the rationale for a Community environmental management system.

EMAS (Eco-Management and Audit Scheme) has been conceived for any private or public organisation wishing to identify, assess, manage and improve its environmental performance on a continuous and transparent basis. It is based on a voluntary commitment which goes beyond mere compliance with the law. Organisations taking part in the scheme provide themselves with internal organisational structures and appropriate procedures to this end. The results of the commitments entered into are made public and regularly verified. EMAS concerns all areas of activity, from industry to services, and takes into account all the aspects of an activity. It is not a tool for quantifying expected environmental effects, any more than the EMAS registration is an ecological quality label for products.

Rather, its purpose is to introduce a method for managing environmental issues which is credible. The different stages of this method are presented in *pages 5 to 7*.

LIFE (the Financial Instrument for the Environment) includes among its objectives – *see page 30* – contributing to the implementation of Community legislation on the environment, of which the EMAS Regulation is part. Dozens of LIFE-Environment demonstration projects are directly concerned with the application or promotion of EMAS in companies or administrations. Others which are not specifically dedicated to EMAS are helping through their innovatory character to create a favourable terrain for good environmental management and are thus also complementary to EMAS. A number of LIFE-Third Countries technical assistance projects are aimed at the dissemination of EMAS principles in the future Member States or in other Third Countries. This brochure presents eight LIFE-Environment projects and two LIFE-Third Countries' projects.

A wide range of topics

About 30 of the **LIFE-Environment** projects completed or being carried out (those prior to the 2002 selection)² are directly connected to EMAS. They cover a wide range of topics which are described in the LIFE database³. These topics may be summarily broken down as follows:

> Since the first EMAS Regulation, trials have been carried out to extend the system to local authorities through an approach common to the towns of a country or of several countries, often in parallel with the promotion of EMAS in key businesses in the local economy.

This is the case of three projects presented in this brochure and implemented by three towns in Greece (page 10), three local authorities in the United Kingdom, Ireland and Denmark (PIE project, page 14) and three towns in Germany, Austria and Greece (page 18).

> Following the adoption of the EMAS II Regulation (see page 8), its application was promoted by the local authorities in a whole region and methodological tools which could be used throughout Europe were devised.

The Euro-EMAS project carried out in the United Kingdom following the PIE project experiment developed a conceptual framework and a series of practical tools for local European authorities (reference: LIFE98 ENV/UK/000605).

> The implementation of EMAS in primary and secondary municipal schools.

The authorities of Århus in Denmark created the first EMAS registration project of all the primary and secondary schools of a municipality (LIFE99 ENV/DD/000618).

> The application of EMAS to land use management at local or regional level.

Land use management is at the heart of the issues in various projects such as, for example, the EcoMonte project for the sustainable development of the Alpine region of Grosses Walsertal in Austria (LIFE00 ENV/A/000249).

> Preparing an economic sector (agro-industrial SMEs, small agricultural holdings, the timber sector, tanneries, tourism, construction, hotels or camping sites, hospitals, automotive suppliers, research-development services, etc.) to implement EMAS on a local, regional or even national scale based on a selection of pilot companies.

Two projects of this kind are presented in this brochure, one dedicated to the tannery sector in Italy, the other to agro-industrial SMEs in the region of the River Guadiana in Spain (pages 11 and 12).

> Trying-out – in various sectors and at regional level or on a wider scale – procedures adapted to small businesses and financial optimisation models.

The Irish project EPICENTRE has launched a broad range of activities in a European context involving small organisations in both the private and the public sectors (LIFE00 ENV/IRL/000756).

> The adhesion of major areas of economic activity, such as an industrial estate, to EMAS.

Such is the case, for the first time, of the Plaine de l'Ain Industrial Estate in France (see page 24).

> Demonstration projects in natural protected areas (national parks, etc.) or in ecosystems (river basins, mountainous areas, etc.) threatened by pollution, and involving economic players.

The integrated environmental management of the Zakynthos national marine park on the island of Zante (Greece) is a particularly visible example of this kind of project (LIFE00/ ENV/GR/000751).

> The integration of environmental management and other management systems (such as quality, safety, etc.).

The GOM project in West Flanders, Belgium, constitutes a far-reaching experiment in this area (see page 20).

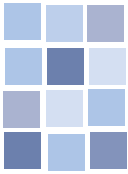
¹ EMAS is not implemented in LIFE-Nature projects which are for the most part located in the network of NATURA 2000 sites and where there are not generally any manufacturing activities. Each of these sites is the subject of a management plan with ecological criteria which in principle exclude the need for LIFE-Environment or EMAS intervention. Organisations situated in other conservation zones such as natural parks may however implement EMAS.

² For the eight projects from the 2002 selection dedicated to EMAS, see the site: <http://europa.eu.int/comm/environment/emmas/activities/europ/en.htm>

³ See the site: <http://www.europa.eu.int/comm/environment/life/home.htm>

Discovering environmental management in the countryside of the County of Fife, Scotland.





Some conclusions

Examining the results of these projects makes it possible to draw the following conclusions, which are not exhaustive:

- > Despite the small number (about 15 in all) of EMAS registrations before the projects were completed, many of the organisations taking part managed to complete part of the EMAS procedure in the course of the project. A number of them would not have embarked on this course outside of the LIFE context and LIFE helped them to do so in a structured way. LIFE has stimulated a real interest in EMAS in different sectors and thus created a favourable terrain for the future.
- > LIFE played the role of a precursor for extending EMAS to the public sector.
- > LIFE highlighted the need to publicly encourage SMEs wishing to apply EMAS and encouraged a future reduction in the costs of procedures, thanks to modelling based on common approaches.
- > Projects have often demonstrated the possibility of significantly improving techniques or practices with regard to the environment and the great potential for reducing the production and management costs engendered. In this way LIFE has helped to show that EMAS, often initially perceived as an additional burden, in fact constitutes an economic opportunity in the long term.
- > A series of experiences are transferable nationally or at European level, backed up by the compilation of a wide range of guides and other didactic materials.

Generally speaking, we might describe the period in question as a gestation period for EMAS, with LIFE contributing support which is not measurable in the number of registrations but in the quality of the transferable experiences. The culture of eco-management instilled by LIFE and EMAS is still young. The years to come will be decisive in terms of its taking root in the economy and in society. It must of course be stressed that the obtaining of an EMAS



Plaine de l'Ain industrial estate, France, is the first in Europe to be EMAS-registered: Speichim Processing site (above).

registration in the context of a LIFE project is a reciprocal advantage for the latter and promotes the continuation of the environmental activity after the project has been completed.

During the same period, the six **LIFE-Third Countries** projects dedicated to promoting the principles of EMAS have helped to draw up an inventory of the environmental situation in the countries concerned, to support the process of revising legislation, to establish the necessary administrative structures and models adapted to environmental management and to train those on the spot in the subject skills needed.

An indirect and global contribution

Apart from the projects directly connected to EMAS, other LIFE-Environment projects act in its favour by exploring original pathways for environmental management through a systematic approach where awareness is raised in certain socio-professional circles, such as the public authorities.

An example of this approach is the LIFE-TANDEM project presented in this brochure (page 16), which mobilised all the energies of a local community to reconcile protection of the environment with economic and social development.

From a global standpoint, the LIFE programme as a whole supports the Community eco-audit scheme by encouraging sustainable development, voluntary commitment to benefit the environment, an integrated approach to problems and the search for innovative and transferable solutions.



EMAS, a sustainable approach for the environment

... based on participants' voluntary commitment to continually improve their environmental performance

Who may participate?

EMAS is open to **any public or private organisation**, whatever its field of activity, including companies, national or regional administrations, local authorities, schools or hospitals, non-governmental organisations, etc. It is applicable throughout the European Union, the other States of the European Economic Area and, increasingly, in future Member States of the Union. EMAS is also a reference in other countries bordering the Mediterranean or Baltic Seas, where it has been tried out as part of LIFE-Third Countries projects.

What are the stages?

1. Informing and deciding. Every Member State has set up at least one **competent EMAS body**. Those consulting this body can be well informed of procedures, costs and possible funding and obtain appropriate guidance according to the nature of their organisation. Information and advice may also be provided by the European Commission's **EMAS Helpdesk**. The list of competent bodies is available on the Internet and the Helpdesk website also supplies useful information (see box).

2. Environmental analysis. An important factor for success is that the candidate organisation should be analysed properly at the start. The first step is to take a thorough "**x-ray**" of the features of the organisation which affect the environment, including its manufacturing processes, its products and services, its buildings and equipment and its legal context (statutory environmental obligations), and its existing practices or procedures with regard to the environment (evaluation methods, management of materials and waste, water, energy and various types of pollution).

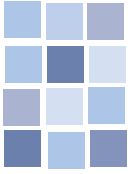
To contact your competent EMAS body and the Helpdesk

- Competent EMAS bodies in the Member States:
http://europa.eu.int/comm/environment/emas/tools/contacts/competent_en.htm
- EMAS Helpdesk at the European Commission: EMAS Helpdesk,
tel: +32 2 282 84 54, fax: +32 2 282 84 54, e-mail: emas@cec.eu.int
- EMAS website (general information and news):
<http://europa.eu.int/comm/environment/emas>

The next step is the **diagnosis**, in order to define which are the significant environmental impacts (direct or indirect) of activities and those which may be treated in the short term, account being taken of the organisation's capacities and the factors on which it is competent to act. The approach is flexible, although it has to be geared towards a continuous improvement in environmental performance. The impacts to be dealt with in the long term must be identified purely in respect of the requirements of environmental protection, without budgetary considerations.



Analysing activities which have an impact on the environment is fundamental for a sound environmental management system: A dye laboratory (left).



3. Environmental policy. On the basis of the initial analysis, the organisation defines the environmental policy which it intends to apply, its **general objectives** as well as an **action plan** outlining the major lines of action to be implemented under the programme. This policy includes the preliminary obligation of observing environmental legislation, beyond a simple commitment to do so later, as is the case regarding the ISO14001¹ international standard.

4. Environmental Management System (EMS). The organisation next determines the **operational means** which will enable it to establish and apply the measures resulting from the action plan, such as human, technical and financial resources, the procedures and forms for evaluation and follow-up, training programmes, and the internal and external communication method to be used, depending on the context (with neighbours, municipal or other authorities, suppliers and customers, etc.). Responsibilities have to be attributed. The procedures of an EMS have to be adapted to the nature, size, capacity and requirements of the organisation concerned.

The EMS adopted by EMAS is the **same as that for the international standard ISO14001**¹. For all organisations that are already certified under ISO14001, this facilitates their transfer to EMAS. The EMAS Regulation ascribes particular importance however to informing and encouraging the participation of the entire **staff** (creation of an environment committee, of a suggestion box, and so on). This is one of the reasons why EMAS goes further than ISO14001 in terms of transparency and credibility.

¹ ISO: International Organisation for Standardisation. The ISO14000 series comprises standards on the environment. ISO14001 concerns the environmental management system of a body. ISO14001 is more widely known internationally and contains fewer requirements than EMAS, which explains why it is more widespread.

5. Internal audit. The organisation carries out an internal audit to assess the operation of the EMS and the results achieved in the light of the policy adopted and of the legal obligations. The auditor is not normally supposed to be a member of the same department as that being audited, but this may give rise to difficulties in the case of small businesses. Some organisations have recourse to cross-auditing, such as between two local authorities and, less frequently, between two companies (for reasons of confidentiality). The audit must be performed regularly, making it possible to ensure the **continuity** of environmental improvements, and at least after a three-year period. Its findings may give rise to a review of the EMS.

6. Environmental statement. The environmental statement outlines the organisation's policy and action plan. In addition, it presents – **on an annual basis** – the results obtained compared with the objectives set and the action to be carried out to continue to **improve** environmental performance. Small organisations may not be required to produce this every year. The statement must be drawn up in a way which is legible for a non-specialist public.

Municipal services take on a large share of the environmental management efforts: Planting trees in Karditsa, Greece.

Once validated, the environmental statement must be made **public** so as to provide all the interested parties (the staff, suppliers and customers, authorities, neighbours, citizens and so on) the crux of the information, making it possible to show the improvements obtained, to respond to concerns and to permit frank and open **dialogue**. An environmental statement is not required for ISO 14001 and it is mainly regarding this point that the EMAS approach is more demanding.

7. External verification and registration. Verification is performed by an **accredited verifier** who is not in any way connected to the organisation. Verifiers may originate in any Member State. Verification is concerned with the conclusions of the environmental analysis, the EMAS, the internal audit procedure and the environmental statement. It must be performed at least every three years and annually for the updates of the environmental statement. Once validated, the statement is sent to the **competent national EMAS body** responsible for granting registration.

At that point the organisation is entitled to use the **EMAS logo**. There are two versions of this logo, “Verified environmental management” and “Validated environmental information”. The first attests to the conformity and proper functioning of the EMAS, while the second attests to the validity of the contents of the environmental statement.



What are the advantages?

The advantages of choosing EMAS for all types of organisations are many:

- > Quality environmental management and a better management of environmental risks.
- > A guarantee of compliance with environmental legislation and thus fewer risks of fines.
- > The incorporation of the principles of sustainable development into economic activities and into those of public bodies.
- > The dissemination of validated environmental information by a body which has no link with the organisation.
- > Saving of resources (energy, water, etc.), leading to a reduction in costs.
- > Increased outlets in markets where importance is ascribed to ecological manufacturing processes.
- > Better relations with customers, local bodies and communities, regulatory authorities and a better image for administrative departments and institutions of public interest (schools, etc.).
- > Improvement in the working environment, with increased motivation of staff and consolidation of team spirit.
- > The use of the EMAS logo as a marketing or public relations device, with the environmental commitments having real credibility.

Small businesses take to the EMAS route with Ecomaps

Small enterprises experience many difficulties implementing EMAS or ISO14001. The procedures appear too cumbersome and too costly for their requirements and possibilities. For such businesses, Ecomaps are a practical alternative and an awareness-raising tool which can lead them in the direction of EMAS. They are a simple visual system permitting businesses to locate their problems with the aid of symbols on plans of their site and to draw up a work programme on this basis. The results are convincing, as witnessed by the case studies presenting two projects supported by LIFE, namely "EPICENTRE" in five European countries and "DELTA Network" in five Arab countries. These studies are available on the site: www.ecomapping.org; e-mail: ecomapping@skynet.be



Better management of industrial risks is one of the most important advantages of environmental management systems: Distillation towers at Speichim Processing, Plaine de l'Ain industrial estate, France.

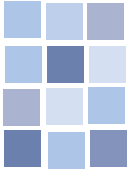


EMAS
 VERIFIED
 ENVIRONMENTAL
 MANAGEMENT
 UK-000000



EMAS
 VALIDATED
 INFORMATION
 UK-000000

Example of two versions of the EMAS logo, awarded to a company in the United Kingdom. The first relates to the environmental management system; the second validates the information given in the environmental statement.



Legal background

The first EMAS Regulation¹ aimed at the industrial sector was adopted in June 1993 and implemented in 1995. In 1996, the Commission recognised the new international standard ISO14001 as a point of departure for taking part in EMAS. Several Member States have availed themselves of the opportunity, provided for by the Regulation, of extending EMAS to all sectors with success (notably with support from LIFE). The second EMAS Regulation was adopted by the Council and the European Parliament on 19 March 2001².

The EMAS II Regulation

The major new elements of the EMAS II Regulation are as follows:

- > The extension of EMAS to all sectors, including public authorities;
- > the adoption of ISO14001 as an environmental management system (EMS) applied in the framework of EMAS, thus facilitating the transition from the international standard to the European scheme;
- > the adoption of an EMAS logo to make registration more visible;
- > the involvement of staff in the implementation of EMAS;
- > strengthening the role of the environmental statement as a tool of transparency in communication with all interested parties and the public;
- > taking better account of the indirect effects on the environment, including those of administrative activities;
- > a special effort to encourage SMEs to access EMAS.

Two documents³ adopted by the Commission on 7 September 2001 lay down guidelines for implementing the Regulation. One of them deals with the entities which may be registered, the frequency of verifications, validations and audits and the use of the logo, while the other deals with the environmental statement, the participation of staff and the identification of environmental factors.



Extension of EMAS to local authorities: Putting environmental management in the public arena.

Alongside EMAS

The **6th Community Action Programme for the Environment**⁴ advocates a more widespread implementation of EMAS and the encouragement of compensatory systems for undertakings with good environmental performances. The Communication of the Commission of 2 July 2002 concerning **Corporate Social Responsibility**⁵: A business contribution to Sustainable Development highlights EMAS as an instrument for this purpose. The Communication of 17 July 2002 on **Environmental Agreements at Community level**⁶ highlights the role of EMAS in the area of control. That of 26 April 2000 entitled **Challenges for enterprise policy in the knowledge-driven economy**⁷ provides for EMAS involvement in the "BEST" procedure⁷.

Finally, the interpretative Communication on the **Community law applicable to public procurement**⁸ cites the role of EMAS as proof of respect for environmental requirements.

¹ Regulation (EEC) No 1836/93.

² Regulation (EC) No 761/2001.

³ Decision No 2001/681/EC and Recommendation No 2001/680/EC.

⁴ Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002.

⁵ COM(2002) 347.

⁶ COM(2002) 412 final.

⁷ COM(2000) 256 final. "BEST" (Business Environment Simplification Task Force) is a working group set up by the Commission in 1997 to eradicate obstacles to the development of enterprises, particularly SMEs.

⁸ COM(2001) 274 final.

EMAS in the EU

Since EMAS was launched in 1995, the number of EMAS registrations has steadily increased. By December 2002 the number of EMAS registrations in the EU and in Norway had reached 3 797, broken down as follows by country: Germany 2 486, Austria 331, Spain 263, Sweden 201, Denmark 130, Italy 123, United Kingdom 76, Norway 56, Finland 41, Netherlands 27, France 24, Belgium 18, Greece 9, Ireland 8, Portugal 3, Luxembourg 1.

EMAS in local communities

... and at the European Commission

A European conference in the context of the 2002-2003 campaign to promote EMAS in local communities took place in Amiens (France) on 20 November 2002.

Interview with Cristina Marongiu, Member of the EMAS Unit of the Environment Directorate-General at the European Commission.

Madame Marongiu, what is this campaign aiming to achieve?

> Public bodies are a crucial sector for the implementation of environmental management based on voluntary commitment and which promotes the dissemination of the principles of sustainable development. Up to now, eco-management has taken root mainly in companies. For some years, however, this concept has been making headway in the public arena. What is more, experience from a series of LIFE projects has contributed to this (as the projects presented on pages 10, 14 and 18 show). Since 2001, moreover, EMAS is open to all sectors. By the end of 2002 there were more than one hundred local authorities registered for EMAS in nine Member States. The ball has started rolling and spin-offs can be seen in relations between local or regional authorities and industry as well as in the service sectors, such as transport, tourism or even sport (see box). In order to boost this momentum, the Commission launched this campaign in Rome in May 2002 and it will be pursued in a series of towns until the summer of 2003.

The aim is to provide information on EMAS where lacking, to make public bodies aware of their responsibilities to citizens and the areas which they manage, to encourage them to set an example and to foster dialogue, the exchange of good practices and networking. The Amiens Conference afforded an opportunity for very valuable discussions, based on shared experiences, on various questions such as the complementarity between the Agenda 21 local action plan which evolved from the 1992 Rio Summit and EMAS, which is an instrument to implement environmental commitments. This encounter was even more useful as France is one of the Member States where no local authority has yet been registered for EMAS. One of the important aspects of the campaign is to encourage all Member States to adopt appropriate measures to promote EMAS and to facilitate the access of public organisations, in particular, to Community eco-auditing.

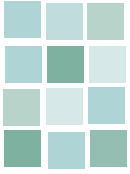
Talking about the need to set an example, the European Commission is also one of those public authorities...

> Yes, of course, and it is in order to be consistent with European policy that the Commission decided in September 2001 to apply EMAS, in a pilot phase, to three of its own departments:
The Secretariat-General (competent for internal procedures), the Administration DG (which manages buildings and supplies, in particular) and, naturally, the Environment DG. A team has been made responsible for coordinating its implementation. The environmental analysis has begun. Information will be regularly available on the EMAS Internet site (see page 5).

- > In several Member States, particularly in Germany, partnerships between the regional authorities and industry have subscribed to EMAS. The Umweltpakt¹ (environmental pact) of Bavaria is a fine example of cooperation. Read the report on page 24 for more on this topic.
- > By inaugurating the first "EMAS train", which bears the EMAS logo in large letters on its sides, the Cologne public transport company has triggered a particularly effective promotional campaign.
- > Applying EMAS to manage the environmental impacts of the Winter Olympic Games in Turin in 2006 will at the same time provide an opportunity for a far-reaching awareness-raising campaign.

¹ http://www.umweltministerium.bayern.de/agenda/umw_pakt/england.pdf





LIFE-Environment project in Greece

A healthy partnership between the town and the environment

A schism between the town and the environment is not inevitable. EMAS procedures help to reconcile them to each other. The municipal departments of three average Greek towns have demonstrated this, thanks to this LIFE project.



Building a waste treatment plant in Larissa.

The activities of municipal departments are often planned without taking into account their effects on the environment, be they direct or indirect. Any plan to change this situation would encounter many stumbling blocks. There had to be real will for innovation in order to launch a groundbreaking project in 1996 to introduce EMAS into three average Greek towns, namely Volos, Larissa and Patras. Beginning with the management of waste and of green areas, the aim was to inaugurate a process whereby the environmental performances of the three municipalities would steadily improve.

With a view to drawing up a proper inventory of the area, the analysis of a series of ecological problems was first performed, while the European and Greek legislation was reviewed. Each municipality then adopted its own environmental policy, fixed its priorities, programmes, structures and procedures and defined the responsibilities among its staff according to its own diagnosis and the resources available. Staff were introduced to eco-management, the EMAS scheme and its application in each department, through seminars.

Altogether, this project made it possible to achieve better management of natural resources and hazards, to observe regulations, to reduce pollution and the risk of accidents, and to spend money more efficiently. In Volos, for example, the land of a former tip was restored, storm or effluent drains connected to the water purification plant were constructed, electro-mechanical plant was installed, biogas was collected from landfill, the Region of Thessaly delivered a licence to produce electricity from biogas and – in the light of the requirements highlighted by LIFE – an ERDF¹ subsidy for an integrated management plan for the sanitary landfill system and the municipal waste-processing plant was obtained.

Finally, a widely distributed guide³ was compiled on the methodology used, the difficulties encountered and the results of the project, aimed at all the municipalities and at various institutions². The municipalities of Amaroussi and Archaia Olympia were inspired by it to adopt the same approach.

¹ European Regional Development Fund.

² Technical Chamber of Greece (TEE), the Central Union of Local Authorities in Greece (KEDKE), the Local Association of Municipalities and Communities (TEDK).

³ Available in Greek (see contact below).

Reference: LIFE96 ENV/GR/000559

Total eligible cost: EUR 343 259.64

LIFE contribution: EUR 171 629.82

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Duration: from 1 January 1997 to 30 November 1998.

LIFE-Environment project in Italy

Through better management of the environment, Italian tanneries are refurbishing their reputation

In conducting this LIFE project, UNIC (the National Union of the Tanning Industry) succeeded in opening the EMAS approach to a whole sector, consisting almost entirely of SMEs, thanks to the development of a wide range of eco-management tools and their testing in 11 pilot companies.

Since it has multiple effects on the environment, the tanning industry in Italy has suffered from a negative image for a long time. Despite the specific difficulties of the sector in this area, when the LIFE project was launched eco-management was quickly perceived as an essential requirement, a means of dialoguing with the public and an economic opportunity. The objective was to devise a range of *ad hoc* management tools, to lay the foundations of EMAS in the 11 pilot companies and to have a leverage effect throughout the sector.

The tools, developed through a great deal of consultation (six manuals, two training videos and a software), cover three requirements: introducing the components of an eco-management scheme, informing and raising the awareness of staff, and the application and maintenance of the system itself. Innovative and didactic, adapted to the complexity and interdependence of the sector's problems, these tools have been designed for daily use by all staff as well as environmental technical and managerial staff. Their testing in the pilot companies was accompanied by a systematic cost-benefit analysis.

Where their use was optimal, these tools proved themselves to the point that they have become a reference in other industrial sectors. The agreement concluded between the UNIC and the Ministry of Industry to apply EMAS throughout the sector, the first agreement of its kind in Italy, is emblematic of their success.



Tanneries: A sector facing complex environmental problems.

The experience of the pilot tanneries has highlighted the advantages of eco-management not only in terms of the environment but also in the reduction of costs, cost-effectiveness and working conditions. Apart from the importance of having adapted tools and services available, it has also

spotlighted the need for public incentives (reduced taxes on environmental investments, simplified authorisation procedures, etc.) for the companies which have embarked on this path, and particularly for SMEs.

Reference: LIFE96 ENV/IT/000136

Total eligible cost: EUR 1 925 863.57

LIFE contribution: EUR 810 976.90

Beneficiary: Unione Nazionale Industria Conciaria (UNIC), Via Brisa, 3, I-20123 Milan.

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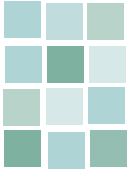
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Duration: from 1 November 1995 to 1 November 1999.



LIFE-Environment project in Spain

Industrial pollution tackled at source to save a river

In order to reduce the pollution of the River Guadiana, the authorities of Extremadura carried out this LIFE project, despite difficulties, in order to inform, train and advise the agro-industrial SMEs of the region and in order to promote EMAS among them.



The River Guadiana is famous for its unusually beautiful landscapes and its exceptional biodiversity, but this valuable heritage is nevertheless under threat. The threat stems mainly from the untreated industrial waters which flow into the river and its tributaries, where pollution levels are high. Faced with this situation, which called for a change in practices by all the industries of the region, the role played by the LIFE demonstration project, which focused on the agro-food industry, was of crucial importance.

Following an inventory of the 800 SMEs of this sector, a survey using questionnaires and an awareness-raising campaign by post and in the press, owners of businesses and their technical staff were invited to conferences on eco-management and its comparative advantages for companies, EMAS, environmental legislation and technical and financial solutions. Given the constraints of production, in particular, the presence of 20 sector companies was a remarkable result, providing a launching pad for a project which aroused keen interest.

The next stage comprised 200 hours of training (160 of which were distance-training), adapted to the various jobs and levels of studies of the 50 participants. Next, technical advice was provided to the 19 SMEs selected for them to establish their environmental policies and programmes and the procedures to follow. Finally, each of them received tailor-made advice on "clean" technologies and the treatment systems appropriate for their situation. At the end of the project, 16 companies had established an environmental policy, 8 had formulated their objectives, 8 their pro-

grammes and 20 had documented their procedures. Various activities were also carried out with other interested companies, while 1 200 copies of an environmental management manual and of a computer program were distributed.

The experiment highlighted in particular the special difficulties encountered by microbusinesses and (which is the multiplier effect of the LIFE project) the need for similar projects adapted to other sectors as well as to the different agro-industrial subsectors.

Reference: LIFE95 ENV/E/000454

Total eligible cost: EUR 654 158.08

LIFE contribution: EUR 302 690.60

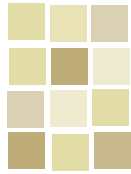
Beneficiary: Junta de Extremadura, Consejería de Medio Ambiente, Urbanismo y Turismo, C/Santa Eulalia, 30, E-06800 Mérida.

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Duration: from 1 November 1995 to 1 November 1999.



LIFE-Third Countries project in the Lebanon

An “Open Sesame” for sustainable development

To completely revise the laws on the environment, to devise national standards and evaluation tools for Lebanese industry, to create the conditions for environmental management according to the principles of EMAS and of sustainable development... This is just a brief glimpse of the vast programme carried out with the help of the LIFE/SPASI¹ project.



Cement works in Lebanon.

Before this LIFE project was launched, Lebanese law on the subject of the environment dated back to 1932. The majority of industrialists were unaware of the quantity of waste produced by their companies – which are generally very small and lacking in treatment systems – most of which was dumped into the sea. Managed by the United Nations Development Programme (UNDP), the aim of LIFE/SPASI was to assist the Ministry of the Environment in reinforcing the system of permits, monitoring and evaluation in the industrial sector.

As the main aim was to guarantee the viability of the reforms after the project had been completed, two strategies were formulated, one aimed at existing industrial plants through a compliance action plan providing for a preparatory period according to sector, and the other aimed at future establishments, through 12 ministerial decisions corresponding to the same number of sectors. An exhaustive evaluation, carried out by questioning all the interested parties, led to the publication of national standards for environmental quality and a national

manual for environmental auditing containing tables of the major pollutants by sector and the limit values allowed for existing or future installations. With this as a basis, a series of seminars was organised for ministerial departments, local environmental consultants, industrialists, etc. During the awareness-raising campaign, which was quite highly diversified, the need emerged to produce two other evaluation manuals for hotels and hospitals.

With a high level of participation and interactivity, this project made it possible to devise a national model for eco-management, to ensure that local competencies were available in this area and to conceive economic instruments for sustainable development. An example of this would be the signing of an agreement in February 2002 between the Ministry of the Environment and the Association of Lebanese Industrialists with a view to joint action to increase industrial competitiveness and the quality of articles for export.

Reference: LIFE99 TCY/RL/102

Total eligible cost: EUR 443 436

LIFE contribution: EUR 356 760

Beneficiary: Ministère de l'Environnement & United Nations Development Programme Lebanon, P.O. Box 70-1091, Antelias, Liban.

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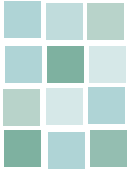
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Duration: from 1 August 1998 to 1 December 2001.

¹ SPASI: *Strengthening the Permitting and Auditing System for Industries.*



LIFE-Environment project in the United Kingdom, Ireland and Denmark

Environmental management in local policies: a precursory transnational project

EMAS was originally aimed at industries. The LIFE project “Partners in EMAS” (PIE), conducted by local authorities in three countries, was one of the first to try to show that the scheme may be applied to local communities, for which the new EMAS Regulation now provides. The guide compiled in the context of PIE is a tool for any local authority interested in applying for EMAS registration.



Authorities in the United Kingdom had already undertaken an initiative to adapt EMAS to local authorities in 1993. Having taken part in this approach, Fife Council (Scotland) became convinced that EMAS was the most appropriate tool for improving the environmental performances of a local community. To demonstrate this, in 1994 it launched the PIE project in partnership with the North Wiltshire District (in the south west of England), County Wicklow in Ireland and Århus in Denmark. The project included an interface between the public authorities and the private sectors of crucial importance locally. Going beyond these four partners, the experiment also aimed at making local authorities throughout Europe aware of EMAS.

In the majority of cases, the EMAS approach was first developed in the services selected by each administration. Action focused on three major questions: how to rationalise energy consumption and the use of transport, how to reduce the tipping of rubbish and what agreements should be made with community service providers? Represented on the Steering Group of the project, the various partner organisations regularly exchanged experience in order to improve their strategy and practices.

Fife Council chose to introduce EMAS into various services within the following three departments: economic development, ground use and management, supplies and printing.

In each of these departments, “green teams” were given the task of encouraging the best environmental practices. In addition, the implementation of EMAS in the Ardroy Outdoor Education Centre was an opportunity for experimenting with the application of eco-auditing to a complete operational unit while reducing the environmental effects of the Centre’s activities. A whole range of other actions concerned energy consumption (case studies of an office, a supplies and printing service and a primary school), waste, the behaviour of suppliers and purchasers, the hotel industry, SMEs, and the lessons to be drawn from applying EMAS to several agricultural holdings.



In the North Wiltshire district, emphasis was placed equally on the local authorities and on the private sector. EMAS was introduced into a series of administrative services (with particular attention to staff training) with a view to its generalisation at a later date. One of the key elements was the use of an evaluation grid to assess the environmental impact of the Council's activities for the compilation of all the reports of the Council's working group. In the private sector, visits to SMEs were organised and a guide distributed to promote EMAS, while an evaluation exercise demonstrated how EMAS could be suitably applied by local farmers.

In Wicklow, EMAS was introduced into the County's water testing laboratory. Communication on the objectives and results circulated regularly among the technicians, the authorities (especially those managing the County's water purification plants) and the public; better account was taken of complaints in this context. In addition, seminars provided a launching pad to promote EMAS in local industries and especially in the tourism sector.

Århus County Council, on the other hand, elected to establish an eco-management scheme throughout its institutions. These included GRENAA hospital, whose 365 employees were involved in eco-auditing by means of a questionnaire and GRENAA College, where a study revealed that it would be possible to cut the college's energy consumption by 50%. By the end of the project, the twelve institutions concerned had completed most of the stages of the EMAS procedure and were able to put forward their environmental statements on an annual basis.

The level of preparation of the different services and the various difficulties encountered meant that the objective of showing that EMAS could be adapted to local authorities was achieved to varying degrees before the PIE project was finished. This does not diminish the success of the latter

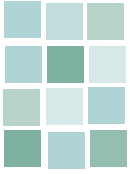
Quality of life is everybody's business: In 1993, the Fife Council, Scotland, stepped in with partners from Ireland and Denmark to promote the application of EMAS to local authorities.

in terms of its local and national effects and its transnational dimension. The "Transnational Guide to Local Authority EMAS", published by the partners in 1997, is still a reference tool for all European local authorities interested in EMAS. It offers them two possible approaches, each having its advantages and drawbacks: the "step by step" approach, where each stage must be completed before the next is tackled, and the "modular" approach, where the procedure may follow a variable order according to circumstances.

Reference: LIFE94 ENV/UK/817
Total eligible cost: EUR 514 670.69
LIFE Contribution: EUR 256 134.45
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Duration: from 1 January 1995 to 30 November 1997.



LIFE-Environment project in Germany

Ecology and industry: a dilemma for a small town

The small town of Ritterhude was faced with the difficult choice of protecting its environment or developing its industry. To settle this dilemma, the municipality launched a LIFE project known as "TANDEM". Although it is only indirectly connected to EMAS, it offers an original example of the first local approach to environmental management in a public/private partnership.



Linpac Plastics, a leading European manufacturer of extruded polystyrene foam for food packaging, risked having to close down its site in Ritterhude, which would have been a social catastrophe for the 15 000 inhabitants of this small town on the outskirts of Bremen. Investment was available to save the firm and its 250 jobs, but the development projects conflicted with the Agenda 21¹ local action plan of the municipality to safeguard the environment and to combat climate change. What is more, the land available for industry was limited as the town is surrounded by protected natural areas.

The challenge seemed insurmountable. The local authorities and industrialists decided however to take it up by acting together, on the basis of a voluntary commitment, and through a new form of public/private partnership, inspired by the overriding idea that economic, environmental and social aspects must be viewed as a whole. In this context, Linpac Plastics was able to rethink its installations and manufacturing methods entirely, thus equipping itself with new units while preserving the environment and safeguarding jobs.

*The town hall of Ritterhude:
A small town thinks big to solve the
ecology and industry equation.*

That is how, for example, all the waste which was previously disposed of (50 tonnes per month) is nowadays recycled in the manufacturing process. The error rate in manufacturing has been reduced to such an extent that the company saves a million kW hours of electricity every year. As the surface area occupied by the new manufacturing units prevented the soil from absorbing rainwater, which was discharged into the town sewers, a special basin was constructed to collect and channel this water. The reorganisation of transport within the company permitted an annual saving of 45 000 litres of petrol, which corresponds to 441 000 m³ of exhaust gas or 135 000 kg of carbon dioxide. Finally, the neighbouring district is protected from noise pollution by soundproofing facilities.

At this point in time Linpac Plastics is one of the few package manufacturing plants to have obtained its ISO14001 certification, and that happened during the LIFE project. What is more, the improvement in environmental management went hand in glove with the industrial performance of the company, making Linpac Plastics a model for the entire region.

The objective was not confined to Linpac Plastics' good environmental performance. For the community of Ritterhude, it was a matter of implementing a vast programme to reorganise its industrial and urban space. This programme included, for example, the restructuring of the local energy supply company, the publication of a guide on sustainable management in the area of industrial planning and the fixing of recommendations for service providers and for members of the administration.

Following visits to study good municipal practices in other towns, it was decided to apply an integrated environmental engineering method called "Ecoprofit"², which had been tried out in Austrian towns, to several companies. Ongoing training modules, notably in environmental eco-auditing within the framework of EMAS, will later be introduced thanks to this method.

To sum up, Ritterhude has set in motion a process at local level which, on the scale of society as a whole, is only in its initial stage. It is true that the driving forces acted in tandem: while the industrialists took environmental parameters into account in their plans, on its side the municipality adapted its Agenda 21 local action plan to the new industrial policy. What is more, all the results of the LIFE/TANDEM project can be transferred to other municipalities and have been disseminated even beyond the region through publications and discussion workshops. Ritterhude is developing cooperation with the Polish town of Brzeg Dolny where Linpac Plastics has opened a new site.

¹ Environmental projects implemented by many local authorities following the Rio Summit (1992).

² Method based on working groups and individual consultations, designed to make SMEs in the manufacturing sector aware of the basic principles of managing materials and energy and to convince entrepreneurs that it is possible to combine respect for the environment with competitiveness thanks to innovation and efficient cost-management.



Revamping the production methods: Food packaging (above).

Saving the company and its jobs while improving environmental performance: Linpac Plastics won the gamble.



Reference: LIFE98 ENV/D/000527

Total eligible cost: EUR 579 780.28 <NB: according to the assessment note>

LIFE contribution: EUR 289 890.14

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Duration: from 1 September 1997 to 31 August 2000.



LIFE-Environment project in Germany, Austria and Greece

Municipal services make a clean sweep: a multinational pilot experiment

Green areas, schools, vehicles: the three European partner towns in this LIFE project – Ratisbonne in Germany, Wels in Austria and Karditsa in Greece – chose these three areas for exchanging their experiences, fixing common guidelines and promoting EMAS within their municipal departments



A key element of European environment policy is to make all players responsible for achieving sustainable development. A great deal of the effort which must be made has to be made by towns, whether the subject be waste, waste water, pollutant emissions, greenhouse gases or excess consumption of resources. While an increasing number of laws and regulations have made implementation by administrations in the environmental sphere more complex, the way they manage their services and their corporate behaviour has nevertheless been slow to evolve. If the environment is everyone's concern, then municipal services ought to set an example. This concern gave rise to this LIFE project, the aim of which was to devise a methodology for eco-management on the model of the EMAS scheme, initially aimed at businesses, in three medium-sized European towns.

The experiment focused on three types of very different services and comprised three stages. First of all, an eco-auditing and management scheme was introduced into one department in each of the towns: green areas in Ratisbonne, vehicles (the municipal vehicle fleet, rubbish collection and street cleaning service) in Wels and a school in Karditsa, and was followed by a comparison of the results. The second phase comprised the extension of this approach to the corresponding departments in each other town, the drawing up of common environmental guidelines and the preparation of manuals for the departments. Finally, general conclusions were drawn, accompanied by seminars and the dissemination of information on the lessons to be drawn from the experiment and its possible applications to other medium-sized towns.

The common guidelines, approved by the competent municipal councils, led to the definition of an environmental policy in each town which took account of existing laws. For each pilot department, the environmental verification included "material" and "energy" assessments, using four different approaches: the inspection of buildings, an inventory of stocks, the study of work stations and individual interviews. These data, collected with the help of the consultant, served as the basis for preparing the environmental programmes of the various departments and their eco-management manuals, which each comprise a part which is common to all three towns and a specific part.



*New equipment for a new idea:
Eco-management is an integral part
of municipal services management.
Rubbish collection project hits the
road, Karditsa, Greece.*

change of attitude of many pupils and teachers concerning the environment, including for safety plans in the event of a disaster.

In Karditsa, where no environment department existed, one was set up. When the LIFE project ended, the municipal departments of Ratisbonne involved in the experiment obtained EMAS registration, while Wels and Karditsa were preparing for registration and the project's methodology was introduced into other municipal departments in the three towns. Finally, a major task was accomplished in disseminating the results: an international seminar of experts was held in Ratisbonne in May 2000, there have been conferences on eco-auditing, press articles, the distribution of an information brochure and of a vade-mecum.

¹ *A general approach of constant improvement that is introduced gradually.*

This task was performed with some difficulty, due to the lack of homogeneity between the administrative structures of Ratisbonne and Wels on the one hand and Karditsa on the other, the difference in size between the three towns (130 000, 70 000 and 35 000 inhabitants respectively), the varying state of the buildings and equipment, different levels of motivation, language and communication problems, and the fear of employees that job analysis would lead to job losses. Thoroughly informing staff and close cooperation with staff in the working groups were a key factor in the project's success, together with the dynamism of the beneficiary of the project – the town of Ratisbonne – and the close cooperation fostered between the three towns.

The results can be seen to have been successful at two levels. Firstly, substantial concrete improvements were made through the more rational use of materials and energy, with a corresponding reduction in costs. This concerned the consumption of fuel in municipal vehicles, of electricity and

paper in offices, the use of fertiliser on lawns and sports fields, drinking water for watering, etc. Secondly, there was increased motivation regarding the environment, which was new in terms of its quality, eco-management being seen as an integral part of service management. Once their initial doubts had been dispelled, municipal employees very often took part, providing suggestions for improvement, inspired by the Japanese "Kaizen"¹. In schools, one promising result was the

Reference: LIFE97 ENV/D/000447

Total eligible cost: EUR 716 351 <NB: according to the assessment note>

LIFE contribution: EUR 358 175.99

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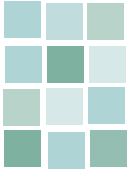
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Duration: from 1 September 1997 to 31 August 2000.



LIFE-Environment project in Belgium

Environmental management as part of total quality management

“Total quality” cannot be complete if it does not include environmental quality.

In addition, integrating management systems is not only possible but also advantageous, as demonstrated by the LIFE project aimed at promoting EMAS in businesses in Flanders that are European pioneers of quality management. Eyewitness account of Mr Philippe Tavernier, Director of the Environment Department of GOM¹ West-Vlaanderen.



“The LIFE project clearly showed the advantages of integrated management systems”, Philippe Tavernier.

“At the end of 1997, Flanders had only a few ISO14001 certified or EMAS registered companies, while it led the way in Europe in implementing quality management systems. Faced with this paradox, we launched this LIFE project to promote eco-management systems in Flanders. We wanted to show that environmental management is an integral part of total quality management, that the combination of eco-management schemes with other management systems is perfectly feasible and that this integration offers many advantages.

The project was put forward by the public authority for the regional development of West Flanders, the GOM West-Vlaanderen. As partners, GOM had the public authority for occupational training and guidance, VDAB² Training & Opleiding, two consultants, WES and Amelior, and three companies: the Lannoo printing press in Tielt, the Hanson Desimpel Industries Brickworks in Kortemark and the road construction company Aswebo in Bruges. To carry out this project we used a methodology to integrate the management criteria required for the ISO9000 series (quality management), for the VCA³ safety management system and for EMAS (which includes the ISO14001 criteria).

Action was taken at three levels. The first concerned the partner companies, which had to apply the methodology totally, while receiving assistance to do so. In addition, 24 other companies divided into groups and took part in an intensive training session using the Combipas formula, which combined joint training sessions with individual help for each company. One of the groups introduced ISO14001/EMAS and ISO9001 simultaneously. Another incorporated ISO14001/EMAS into ISO9000 which was already being implemented. A further group incorporated ISO14001/EMAS into a safety management system which was already in place. Finally, in a broader perspective, the project included information and awareness-raising sessions in which 150 businesses took part and a short training programme (six days), which was followed by 22 companies.

The Lannoo printing works successfully integrated ISO9001, ISO14001 and EMAS. This was the first company where three parallel auditing systems took place, the first SME in Flanders and the first graphics company in the Benelux area to obtain EMAS registration. On its side, Aswebo integrated ISO14001 and EMAS into its existing quality management and safety system. Hanson Desimpel Industries integrated ISO14001 into ISO9001. At present, nine participants in Combipas or the training programme have obtained their ISO14001 certification, with or without integration, and eight companies that have embarked on the ISO14001 procedure have already fixed the date of their certification. Many others, based on the information distributed by the project, have set up an internal eco-management scheme without aiming at certification.

The project clearly illustrated the advantages of integrated management systems. First of all, these make it possible to take account of existing synergies between quality, safety and the environment. Such integration also makes it possible to have the same principles, structures and management tools for each system. What is more, given that there is a lot of overlapping between the different conditions required, a large number of procedures (internal audits, checking of documents, etc.) can be established on a single occasion while others need only to be slightly adapted. According to the firms taking part, this advantage was particularly appreciated by their staff.



The Lannoo Printing Works receives EMAS certification from Minister Van Mechelen (centre).

Thanks to its demonstration role and the assistance given to participants, our LIFE project not only made them decide more quickly to introduce an eco-management system, but also enabled them to proceed in a structured way. The method used makes applying this system more efficient, firms are in a position to substantially improve their environmental performances and this experiment gave a vital boost to communication both inside the company and outside of it on environmental questions. As for the direct or indirect dissemination activities, it is unquestionable that these helped to make EMAS and eco-management schemes better known in Flanders.

In the aftermath of this LIFE project, our two consultant partners set up new, similar projects, such as assistance in integrating ISO14001 and ISO9001 for the nine inter-municipal incinerators of household waste or in the use of the Combipas formula for eight composting companies. It is also thanks to the LIFE experiment that WES and the software designer Hemmis developed a specific software to define decisive environmental parameters.”

¹ GOM: Gewestelijke Ontwikkelingsmaatschappij (Regional Development Corporation).

² Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding (Flemish placement and vocational guidance service).

³ "Veiligheids Checklist Aannemers", a safety management system which is quite widespread in Belgium and the Netherlands.

Reference: LIFE98 ENV/B/000262

Total eligible cost: EUR 446 511.33

LIFE contribution: EUR 223 283.92

Beneficiary: GOM West-Vlaanderen, Baron Ruzettenlaan 33, B-8301 Assebroeck-Brugge.

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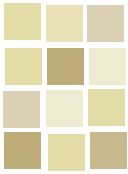
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Duration: from 1 August 1998 to 1 November 2001.



LIFE-Third Countries project in Cyprus

Making an island greener for its entry into the Union

With the help of LIFE-Third Countries, the Cypriot authorities made EMAS a driving force to improve the environmental performances of companies and at the same time a lever to increase their competitiveness in a crucial period in Cyprus marked by its preparations to enter the European Union. In particular, the LIFE project helped Cypriot industries to establish their requirements in the area of “best available techniques”, thus preparing them to comply with European environmental rules as provided for in the EMAS Regulation.



Hotel Columbia Beach: One of the first four Cypriot companies to take on EMAS certification.

Conceived by the Cypriot Government as yet another step on the path to accession, this project followed up another LIFE project¹, which assisted in adapting environmental policy and legislation in Cyprus to those of the Union. The aftermath of the first project consisted of developing the tools and strategies of Cypriot policy for sustainable development by strengthening existing administrative structures, creating new ones and promoting cooperation, the exchange of experiences and of knowledge, the main objective being to promote EMAS in firms in the industrial and tourism sectors.

A prior condition to the implementation of EMAS in the island was the devising of the necessary institutional measures to create a competent national body for the accreditation of environmental verifiers. This involved preparing the administrations concerned. It also presupposed awareness-raising in the companies concerned, both to prepare them to accept EMAS requirements in terms of procedures and compliance with European law and to grasp its advantages, thus rendering them more capable of adopting an approach of voluntary commitment in favour of the environment. All that necessitated a substantial training programme for managers in the administrative departments and in the companies concerned – particularly high-level technical managers – and training for environmental verifiers.

Three guides were published as preparation for the organisation of three workshops, for public bodies, candidate verifiers and companies respectively. The work accomplished made it possible to devise a national action plan targeted at coordinating the introduction of EMAS in the island and its implementation in companies. Four pilot firms, instead of the three initially scheduled, were the first to seek EMAS registration in Cyprus: a dairy (Christis), a wine and beer industry (KEO) and two hotels (Aliathon and Columbia Beach). Finally, a far-reaching campaign to disseminate the results of the project in administrative departments, within companies and among the public was launched.



Doctor Yoannis Karis, Director of the Cypriot Organisation for Standards and Control of Quality during a LIFE workshop.

These are meaningful results. The LIFE project helped the authorities to speed up the harmonisation of legislation, to set up the institutional mechanisms needed to apply EMAS and to launch, through the national action plan, economic activities linked to environmental projects. It enabled industrialists to perceive better the advantages which eco-management can bring to them in terms of image and competitiveness, while helping them to adapt to European environmental requirements.

The main aim in this context was to promote the application of the Directive concerning integrated pollution prevention and control². This Directive provides for the fixing of authorised emission limit values and operating conditions on the basis of "best available techniques" (BATs), taking account of the technical features of installations and the local environmental context in order to guarantee a high level of environmental protection considered from all its aspects. The LIFE project made it possible to determine the major requirements of Cypriot firms in various industrial sectors with regard to BATs.

The tourism sector was not neglected and a guide for the environmental management of hotels was published. At the end of the project, the four pilot companies had an eco-management system and a documented EMAS procedure. The authorities expect to be able to apply the EMAS Regulation at the end of 2003 and a significant number of companies will by then be prepared for it.

¹ "Medact, Aphrodite project", LIFE 96 TCY/CY/47.

² Council Directive 96/61/EC, one of the cornerstones of European environmental policy.

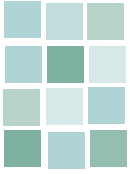
An environmental management guide for resort hotels.



Reference: LIFE99 TCY/CY/102
Total eligible cost: EUR 270 000
LIFE contribution: EUR 185 500
Beneficiary: Ministry of Commerce, Industry and Tourism / Organisation for Standards and Control of Quality, CY-1421 Nicosia.

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Duration: from 1 September 1999 to 1 September 2001.



LIFE-Environment project in France

The Plaine de l'Ain Industrial Estate: EMAS for environmental management down by the riverside

The first industrial estate in Europe to be EMAS-registered, the Plaine de l'Ain industrial estate is pursuing an environmental campaign which can be traced to its creation twenty-five years ago. Apart from instituting EMAS, the LIFE project comprised actions to accompany the estate's companies. This approach was characterised by a will to be transparent, reflecting the water which abounds here and whose quality is the subject of keen vigilance.



Quality of life: The Industrial estate boasts it's own riding club.

The taxi went a bit too far along the Chemin des Bergeries: the ochre and green house was not the Industrial Estate Office, but a country cottage, and a horse's head was sticking out of the window of the adjacent stable. We had to reverse to find the small building painted in the same colours where the joint activities of one of France's largest industrial estates are managed. All around us were vast expanses of green, with a few traces of smoke here and there to betray the existence of far less bucolic activities...

As Claudine Lacôte, responsible for the environment of the Plaine de l'Ain Industrial Estate (PIPA) explained, "The LIFE project began with the visit of Mr Hussenot, in charge of areas of economic activity at the Environment Ministry, and who came to meet our former Director, Mr Rohart, to suggest that he undertake an EMAS registration procedure and to propose a European project to that end. Environmental protection was not a novelty for the PIPA which, from its beginnings, had made it one of its key objectives. But with this LIFE project, we entered another phase. For us, EMAS meant,

above all, more transparency (even if we had always accorded a great deal of emphasis to communication), thanks to environmental data being officially validated and communicated to everyone. In the context of our activities, which is particularly complex, this transparency is an essential condition for us to improve our environmental performance to benefit the ecology of the site, our neighbours and the image of our companies."

From the “chemical corridor” of Feyzin to the “paced development” of the Plaine de l’Ain

Managed by the SMPA (Syndicat mixte de la Plaine de l’Ain) under the chairmanship of Mr Marcou, the PIPA straddles the municipalities of Saint-Vulbas and Blyes in the Département of l’Ain, to the east of Lyons, which is known for its industrial dynamism against a background of rural tradition. The estate extends over 900 hectares, 250 of which are nowadays occupied by 69 companies employing some 3 500 people, including a thousand temporary staff. It was set up in 1997 as a response to the desire to disencumber the “chemical corridor” of Feyzin, in the suburbs of Lyons, following the 1967 disaster. Locally-elected officers designed it according to three principles: diversification of activities, environmental protection and the pursuit of “paced development” which respected local balances. Very well equipped, it has rail and motorway connections, but what strikes one immediately is the careful attention paid to the natural environment, where 300 000 trees have been planted, and the way the industrial architecture has been integrated into this haven of greenery.

Many activities have been developed, including the manufacture of detergents and washing powders, the treatment of waste and effluents, wood-working, dyeing and textiles, printing, packaging, agro-food, building and public works, chemistry and pharmaceuticals, a logistic hub, industrial supplies, supply of energy, research and development, technical engineering, maintenance and services.

This industrial deployment confers even greater importance on the estate’s joint purification plant, as this dominates a raised water table scarcely 9 metres below the surface. Plentiful in supply, but sensitive to pollution from a highly permeable soil, the groundwater flows partly into the Rhone and partly into the Ain, a river whose water remains of high quality and is one of the few to still have vegetation along its banks. Despite this abundant water supply, soil on the estate is not very fertile (which is not obvious to the visitor!) and here more than elsewhere a large tree constitutes a heritage. Finally, the SMPA also pays environmental attention to numerous natural habitats and to a few classified areas adjacent to the estate, which are home to a variety of species, including beavers, orchids and kingfishers.

A thorough review and more global management

“Before going over to EMAS”, continues Claudine Lacôte, “PIPA was the first European industrial estate to obtain ISO14001 certification in 2000. This initial phase enabled us to obtain international recognition and to gather enough data to be able to publish an environmental statement the following year and to obtain our EMAS registration, for which we were also the first as an industrial estate. Since then, we have published our environmental statement for 2002.”

One major aspect of choosing EMAS was the systematic review of a series of points which required starting from scratch. *“Many studies had to be redone. Our ‘concerted activity area’, for example, had existed for some time already, so we revised the file with a view to extending it and harmonising it with the regulations that had changed and with which, under EMAS, we had to comply. In order to do this, we stepped up our contacts with a whole range of national, regional and departmental administrations.”* EMAS also caused the PIPA to restructure its activities according to a number of identified weak points. *“The criteria are in fact more demanding than those of ISO14001, where it is common to obtain certification in a specific area (such as the purification of waste water), while other aspects are not taken into account. With EMAS, you cannot ignore significant factors at the risk of not fully mastering the environmental challenges, even in a limited area, given the interdependence of problems. Our experience shows that EMAS is appropriate for an area such as an economic activity area, thanks to global and consistent management and efficient communication. Our environmental policy reflects this dual concern.”*

Lever Fabergé, one of the high risk factories of the industrial estate: Continuous control and maintenance to ensure security on-site and protection of the environment.





An environmental policy which inspires, anticipates and communicates

PIPA's environmental policy presents itself as "an inspiration and help to all companies on the estate to improve their own eco-management". This policy is committed to maintaining balance in the site while respecting the countryside and its natural beauty, to guaranteeing good traffic management, proper conditions for business location and technical support for new companies (from the environmental standpoint and also in a desire to "carry out economic development without penalising what already exists"), continuing investment in the many common plant and services, such as the purification plant, networks for the treatment and supervision of the water table, railways, or managing exchanges between all the parties concerned (SMPA, companies, staff, local population, farmers, municipalities).

The estate is also pursuing anticipatory actions to gain mastery over technological hazards. It encourages preventive strategies and synergies among the industrialists themselves by inciting them to set up eco-management systems, developing tools to facilitate this management, such as an information service on laws and a centre for the exchange of views and reflections on environmental problems (skills centre), and by optimising joint organisation in the case of emergencies (crisis management programme).

Finally, there is communication, of which the environmental statement is the keystone. The 2002 statement sets out the core of the indicators used ("often difficult to establish as a lot of our action has a qualitative value which cannot be measured in figures"), the action carried out in relation to the 2001 statement and the action planned for 2002-2003. It shows that the scheduled improvements have been broadly accomplished and explains some pollution problems due to the hydrographical context (wide variations in the level of the water table in 2001), to works on the site or again to fortuitous circumstances. Achievements in 2001 include, for example, an information sheet to make staff aware of the environment and eco-management, the inclusion

of environmental requirements in public procurement procedures, training on the management of plant protection products for green areas, a reserve of 3 000 m³ to ensure water will be available in the event of a fire, a case for the extension of the purification plant, more detailed methods for analysing the water table, the drawing up of town-planning constraints for "Seveso parameters" (high-risk industries), etc.

Joint purification plant (above).

250 of the 950 hectares are today occupied by 69 companies (below).



Wide-ranging openness on the Plaine de l’Ain

One key element in the transparency policy of the SMPA is its partnership with the **Local Watch Committee**, an association of local residents who maintain connections between the PIPA, elected representatives and local communities and who take part in the life of the estate. *“We don’t just communicate with the outside because we are dependent on local authorities for public surveys, building permits, etc. but also to make our approach broader, to take account of the population’s needs, and to avoid too great divergences. We have carried out inquiries among residents with a view to obtaining a direct opinion that has not been filtered. To popularise our actions, we take part in local events, including sports events.”*

Occasionally there is a need to respond to concerns expressed, particularly relating to the Seveso classified industries. The estate has four: Total (liquid petroleum gas conditioning), Speichim Processing (distillation of chemical products), Orgamol France (fine chemicals) and Lever Fabergé (detergents and washing powders), to which may be added Tredi, not classified as Seveso because it manages waste (incineration of organohalogene waste and of PCBs, processing of mercurial waste, etc.), and not substances. *“These activities are the subject of ongoing supervision and maintenance processes on the sites concerned.*

Nevertheless, we have to pay careful attention to municipalities and to individuals in order to avoid irrational reactions taking over, causing production to be halted. Fortunately, significant releases of pollution are very rare here, but we can imagine what the situation would be if PIPA had not been taking environmental action for the last 25 years.”

With regard to local farmers, PIPA argues for abandoning pesticides, which have not been authorised on the industrial estate where lands from the 450 hectares still available for industrial settlements managed by an agricultural cooperative are rented (should the land be sold to an industrialist, the distribution of cultivated

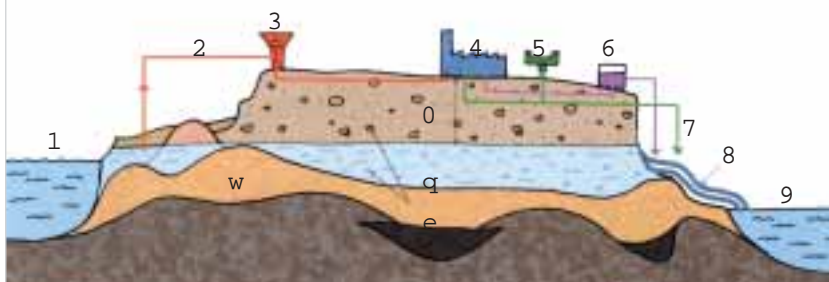
land is reviewed to avoid penalising a particular farmer). The estate also proscribes irrigated crops (to avoid excessive pumping) and prohibits the grubbing up of hedgerows.

Communication also takes place with schools: *“In 2001 we conducted an awareness-raising campaign concerning the countryside among pupils in Saint-Vulbas and their parents, explaining why we maintain ‘green strips’, why we have so many trees, why we plant local species, etc. We drew up information sheets and created a nursery beside the school, where each child was able to plant and maintain a tree labelled with his or her name for it to be replanted later within the estate.”*

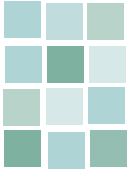


Fine chemicals at Orgamol France.

Monitoring the groundwater: “A major requirement in the industrial estate”.



- 1 The Ain
- 2 Drinkable water
- 3 Water tower
- 4 Company
- 5 Security basin
- 6 Purification plant
- 7 Rain water
- 8 Groundwater sources
- 9 The Rhône
- 0 8 to 9 metres
- q Groundwater
- w Clay
- e Gravel



Solvents recycling:
Speichim Processing.

Dialogue workshops between the estate and its companies

Logically, the estate authorities maintain the closest relations however with the companies on the estate. The major issues are the management of the **joint purification plant**, of which the SMPA is the owner, but whose operating and investment costs are divided among the users according to the waste produced. There are also endeavours to reduce waste at source. **Monitoring of groundwater** is carried out by a certified hydrogeologist under the coordination of the PIPA, thanks to 69 wells which permit piezometric (water table level) measures to be taken and qualitative analyses of the water to be made according to a rapid information and reaction procedure (alerts must be sounded and sources of pollution must be detected before they spread). *"This is a major requirement in the industrial estate."* Although it has so far been voluntary, this monitoring will soon be the subject of national legislation.

The three-monthly **Health-Safety-Environment (HSE)** meetings deal with the current environmental status of the estate, the latest legislation, the needs expressed and often particular issues. They give rise to inspections of sites where *"industrialists are very keen to show their achievements to others, such as the presentation by Speichim Processing of its security system and by Plastic Omnium of its car-pooling scheme, which we are going to try to make more widespread, etc."* The **intercompany audits** (and audits also take place between companies and the SMPA) are an opportunity for auditors to step up their skills by discovering other practices and for the audited party to benefit from outside inspection. *"Sometimes they come up against questions of confidentiality. They could become more important when more companies have a certified eco-management scheme."*

Finally, **diagnoses of companies**, established every two years on the basis of inspections of all the sites, make it possible to update the estate's environmental data bank to draw conclusions for each company, which is then free to carry out improvements. In cases where a hazard could have external consequences, the SMPA endeavours to convince the firm concerned by various methods.

"I should like to point out that our EMAS approach means that we are responsible for managing the estate as a whole", says Claudine Lacôte. *"The scope of our environmental management scheme is the widest possible, but we are not responsible for industrial activities or for the eco-management scheme of each company. Four have already obtained ISO14001 certification, while none is so far EMAS registered. We are there to help them to adopt this approach, and with their commitments towards common activities."*

Special care for nature:
300 000 trees planted.





Security control
at Speichim Processing.

In this way, flexible but enduring links are forged between industrialists and the SMPA. We have recorded some reactions. Cécile Joly-André, who is responsible for Quality, Safety and the Environment at Speichim Processing, says: *“ISO14001 certified, we have our own environmental approach and our own audits within the Tredi group, we carry out quite specific actions on our site but which blend in with the common activities of the estate. I have not yet been audited within the context of the PIPA but I have audited its Director-General, Mr de Beaupuy, and Miss Lacôte. I have also audited Orgamol, whose operation is very different from ours. Variety among the*

auditors is important for optimising improvements.” According to Philippe Muzin, responsible for the environment at Orgamol France, *“through its dynamism, the SMPA’s EMAS approach has brought beneficial repercussions for our company. In the HSE meetings, for example, industrialists have been able to centralise their replies to the competent administration for the inspection of waste water networks, which has enabled us to benefit from competitive prices. Another example are the proposals to externalise services with the cooperation of industrialists (project to extend the purification plant, project for the centralised supply of steam). There*

again, there are exchanges of experience such as through the creation of a brochure presenting the estate and the formation of a group of ISO14001 auditors, crossed auditing, site inspections, etc.”. Gilles Dupras, who is responsible for the environment and safety at Lever Fabergé, insists on *“the major added value for our company – already ISO14001 certified – to be located in the first EMAS registered industrial estate in Europe. The outcome is a synergy among the companies involved in ISO14001 as regards the environmental approach and through common activities.”*

Reference: LIFE98 ENV/F/000325
Total eligible cost: EUR 1 064 094.10
LIFE contribution: EUR 307 009.58
Beneficiary: Syndicat mixte de la Plaine de l’Ain

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Duration: from 1 September 1997 to 31 August 2000.



Name LIFE ("L'Instrument Financier pour l'Environnement" / The financing instrument for the environment)

Type of intervention co-financing of actions in favour of the environment in the Community, in the countries of central and eastern Europe that are applicants for accession to the European Union and in certain third countries.

LIFE is made up of three subject headings: "LIFE-Nature", "LIFE-Environment" and "LIFE – Third countries".

Objectives

- > with a view to sustainable development in the European Union, contribute to the drawing up, implementation and up-dating of Community policy and legislation in the area of the environment;
- > explore new solutions to environmental problems on a Community scale.

Beneficiaries any natural or legal person, provided that the projects financed meet the following general criteria:

- > they match the priorities laid down at Community level and contribute to the objectives listed;
- > they are submitted by reliable participants from financial and technical points of view;
- > they can be carried out from the technical point of view, in terms of timetable and budget, and offer a good cost-benefit ratio.

Types of project

- > Eligible for LIFE-Nature are nature conservation projects which contribute to maintaining or restoring natural habitats and/or populations of species in a favourable state of conservation within the meaning of Directive 92/43/EEC.
- > Eligible for LIFE-Environment are demonstration projects which bring environment-related and sustainable development considerations together in land management, which promote sustainable water and waste management or which minimise the environmental impact of economic activities.
Five areas of intervention are preferred: the management and enhancement of the territory, water management, the effect of economic activities, waste management, integrated product policy.
- > Eligible for LIFE-Third countries are projects which contribute to the establishment of capacities and administrative structures needed in the environmental sector and in the development of environmental policy and action programmes in the countries bordering the Baltic or Mediterranean seas, other than those of Central and Eastern Europe which have applied for accession.

Implementation The Member States or third countries send the Commission the proposals of projects to be co-financed. The Commission sets the date for sending the proposals annually and reaches a decision on these. It monitors the financing and follow-up of the implementation of the LIFE actions. Accompanying measures enable the projects to be monitored on the ground and, in the case of LIFE-Nature, to encourage certain forms of cooperation between similar projects ("Co-op" measure).

Period of involvement 5 years (2000-2004).

Funds from the Community approximately 638 million EUR distributed as follows: 300 million EUR to LIFE-Nature, 300 million EUR to LIFE-Environment and 38 million EUR to LIFE – Third countries.

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